UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/963,532	09/27/2001	Naofumi Tateishi	92191-89	9252

22463	7590	10/20/2004

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EXAMINER
BHATNAGAR, ANAND P

ART UNIT	PAPER NUMBER
2623	

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
    closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,5-8 and 11-19* is/are rejected.

7)☒ Claim(s) *3,4,9 and 10* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>27 September 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
    application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date <u>09/27/01</u>.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5-7, 11-15, 17, and 18 are rejected under 35 U.S.C. 102(b) as

being anticipated by Golem et al. (U.S. patent 5,367,578).

Regarding claims 1, 13, and 18: Golem et al. discloses a method of

recognizing characters in a character set developed for magnetic ink character

recognition (MICR) (col. 1 lines 13-17 and 49-51 and col. 4 lines 26 and 27),

comprising:

optically imaging one or more characters of said character set as a matrix

of pixels (col. 1 lines 56-60 and col. 2 lines 20-26) ;

summing pixel values in each of a plurality of adjacent parallel lines of

pixels in said matrix to obtain a line total for each said line (fig. 4A and col. 5 lines

38-60, wherein the sums of the pixels are taken of parallel adjacent rows and

columns); and

using line totals in recognizing said one or more characters (col. 2 lines

39-54, wherein the summed values of the pixel data is used to recognize the

character(s)).

Regarding claims 5 and 11: The method wherein each said line is chosen so as to parallel a height dimension of said one or more characters (fig. 2, wherein the column(s) is/are the height of the character).

Regarding claim 6: The method further comprising optically imaging an edge of a document on which said characters are printed and wherein said lines are chosen to have a pre-determined orientation with respect to said document edge whereby skew may be reduced (fig. 1 element 19, 33, 39, and 41 and col. 4 lines 7- 20 and 36-43, wherein the scanning lines are oriented in a specific way to the edge of the document, element 33, and the width of intervals are kept in a predetermined range. This is read as reducing of eliminating the skew since the interval width range limitation will prevent any skewing taking place).

Regarding claim 7: The method wherein each said line of pixels is one pixel wide (col. 5 lines 45-60, wherein the rows and columns are one pixel wide).

Regarding claim 12: The method wherein said character set developed for MICR comprises a set of E13B characters (col. 6 lines 35-45 and col. 8 lines 10-12).

Regarding claim 14: It is rejected for the same reasons as claims 1 and 13 above and for the following limitations of: an optical read head (col. 3 lines 61-67)

a memory for storing templates (col. 4 lines 1-6),

a processor for (col. 4 lines 1-6).

Regarding claim 15: The apparatus wherein said optical read head is a charge coupled device (CCD) (col. 3 lines 61-67).

Regarding claim 17: It is rejected for the same reasons as claim 5 and 11

above and for the conveying the document (fig. 1 elements 19, 37, and 41 and

col. 7-15).

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set
forth in section 102 of this title, if the differences between the subject matter sought to be patented and
the prior art are such that the subject matter as a whole would have been obvious at the time the
invention was made to a person having ordinary skill in the art to which said subject matter pertains.
Patentability shall not be negatived by the manner in which the invention was made.

Claims 2, 8, 16, and 19 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Golem et al. (U.S. patent 5,367,578).

Regarding claim 2: The method wherein said using line totals in

recognizing characters comprises comparing line totals with line totals template.

Golem et al. discloses to recognize a character(s) whereby the

character(s) are optically read, then processing them by placing a window over

the character(s) and obtaining the sums of the rows and columns of the window,

then comparing the window sum results to predetermined patterned templates of

the that are stored in a database in order to recognize the character(s). Golem et

al. does not teach to compare line totals with line totals template. It would have

been obvious to one skilled in the art to modify the templates to be line total

templates and to compare the line total templates to the line sums of the window

instead of the sum of the whole window. One in the art would have been

motivated to modify the system as described in order to speed the system by reducing the calculation step of summing the rows and/or columns to obtain the whole sum of the window.

Regarding claim 8: The method wherein each said line of pixels is more than one pixel wide.

Golem et al. discloses to have the rows and columns one pixel wide. Golem et al. does not teach to have the rows and/or columns more than one pixel wide. It is a matter design choice of how many pixels wide to make the row and/or column.

Regarding claim 16: The apparatus wherein said optical read head is a CMOS imaging device.

Golem et al. discloses to use a CCD read head to optically scan the character(s). Golem et al. does not teach to use a CMOS imaging device. It is well known in the art of imaging processing of CMOS imaging therefore examiner takes OFFICIAL NOTICE.

Regarding claim 19: The computer readable wherein said computer readable medium further causes said computer to load a series of line total templates prior to comparing said array of line totals. It is rejected for the same reasons as claim 1,13, and 18 combined with claim 2 reasons above, and for the feature of loading the templates prior to comparing said array of line totals (col. 4 lines 1-6, wherein the templates are predefined template patterns, read as templates that are loaded prior to obtaining totals).

Allowable Subject Matter

3. Claims 3, 4, 9, and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Marshall et al. (U.S. patent 5,729,621) for MICR recognition and summing pixel values in columns.

Kozlowski (U.S. patent 5,134,663) for character recognition.

Sheppard et al.(US patent publication NO. 2002/0051562 A1) for optical character reading.

Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anand Bhatnagar whose telephone number is (703) 306-5914, whose supervisor is Amelia Au whose number is 703-308-6604, group fax is 703-872-9306, and Tech center 2600 customer service office number is 703-306-0377.
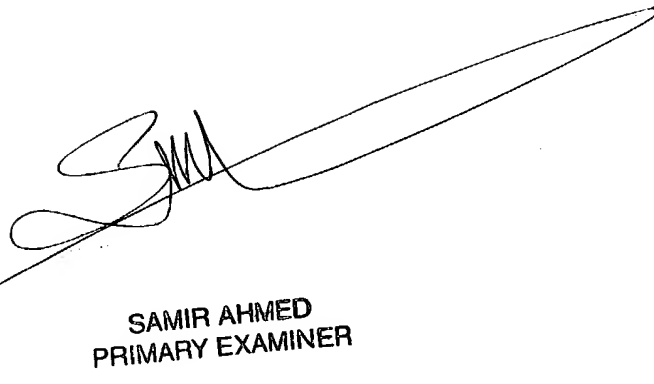
Anand Bhatnagar

Art Unit 2623

October 16, 2004

SAMIR AHMED
PRIMARY EXAMINER